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**west virginia department of environmental protection**

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Division of Air Quality  
601 57<sup>th</sup> Street SE  
Charleston, WV 25304  
Phone: (304) 926-0475 • FAX: (304) 926-0479

Jim Justice, Governor  
Austin Caperton, Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

April 28, 2017

Cary Cannon  
Environmental Affairs Director  
260 Executive Drive, Suite 100  
Cranberry Township, PA 16006

Re: EXCO Resources (PA), LLC  
Green Hills Compressor Station  
Permit Application G35-C008B  
Plant ID No. 035-00047

Dear Mr. Cannon:

The Director has determined that the submitted Registration Application and proposed construction and operation of a natural gas compressor station demonstrates eligibility and compliance with the requirements, provisions, standards and conditions of General Permit G35-C and hereby grants General Permit registration authorizing the proposed activity.

Please be aware of the actions required in Monitoring Requirements, Testing Requirements, Recordkeeping Requirements, and the Reporting Requirements.

Any person whose interest may be affected, including, but not necessarily limited to, the applicant and any person who participated in the public comment process, by a permit issued, modified or denied by the Secretary may appeal such action of the Secretary to the Air Quality Board pursuant to article one [§§22B-1-1 et seq.], Chapter 22B of the Code of West Virginia. West Virginia Code §§22-5-14.

Should you have any questions or comments, please contact me at (304) 926-0499, extension 1212.

Sincerely,

William T. Rothwell II, P.E.  
Engineer

*West Virginia Department of Environmental Protection  
Division of Air Quality*

*Jim Justice  
Governor*

*Austin Caperton  
Cabinet Secretary*

# Class II General Permit G35-C Registration to Update



for the  
Prevention and Control of Air Pollution in regard to the  
Construction, Modification, Relocation, Administrative Update and  
Operation of Oil and Natural Gas Compressor and/or Dehydration Facilities

*The permittee identified at the facility listed below is authorized to  
construct the stationary sources of air pollutants identified herein in accordance  
with all terms and conditions of General Permit G35-C.*

**G35-C008B**

Issued to:

**EXCO Resources (PA), LLC  
Green Hills Compressor Station  
035-00047**

A handwritten signature in blue ink, appearing to read "William F. Durham", is written over a horizontal line.

*William F. Durham  
Director*

*Issued: April 28, 2017*

This Class II General Permit Registration will supercede and replace General Permit Registration G35-B008.

Facility Location: Ravenswood, Jackson County, West Virginia  
Mailing Address: 260 Executive Drive, Suite 100, Cranberry Township, PA 16006  
Physical Address: Ravenswood, Jackson County, West Virginia  
Facility Description: Natural Gas Compressor Station  
NAICS Code: 211111 – Crude Petroleum and Natural Gas Extraction  
SIC Code: 1311 – Oil and Gas Extraction - Crude Petroleum and Natural Gas  
Longitude Coordinates: -81.69417  
Latitude Coordinates: 38.91695  
Directions to Facility: From I-77 South, take Exit 146 to Route 56 East. Follow Route 56 East for approximately 2 miles. Turn left on a gravel road, veer to the left. Follow lease road 0.4 miles to the site.  
Registration Type: Administrative Update  
Description of Change: The facility will continue to operate as a natural gas compression facility with the only changes being the removal of a single Caterpillar G3508 LE Compressor Engine (670 bhp) from the existing permit. This compressor engine was never installed at the site. The only compressor engine at the site is the existing Caterpillar G3508TALE Compressor Engine (633 bhp).

*Any person whose interest may be affected, including, but not necessarily limited to, the applicant and any person who participated in the public comment process, by a permit or registration issued, modified or denied by the Secretary may appeal such action of the Secretary to the Air Quality Board pursuant to article one [§§ 22B-1-1 et seq.], Chapter 22B of the Code of West Virginia. West Virginia Code §22-5-14.*

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*The source is not subject to 45CSR30.*

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## Permit Section Applicability for the Registrant

*All registered facilities under General Permit G35-C are subject to Sections 1.0, 2.0, 3.0, and 4.0 of General Permit G35-C.*

The following additional sections of General Permit G35-C apply to the registrant:

GENERAL PERMIT G35-C APPLICABLE SECTIONS	
<input checked="" type="checkbox"/> Section 5.0	Storage Vessels Containing Condensate and/or Produced Water <sup>1</sup>
<input type="checkbox"/> Section 6.0	Storage Vessel Affected Facility (NSPS, Subpart OOOO)
<input type="checkbox"/> Section 7.0	Control Devices and Emission Reduction Devices not subject to NSPS Subpart OOOO and/or NESHAP Subpart HH
<input checked="" type="checkbox"/> Section 8.0	Small Heaters and Reboilers not subject to 40CFR60 Subpart Dc
<input type="checkbox"/> Section 9.0	Pneumatic Controllers Affected Facility (NSPS, Subpart OOOO)
<input type="checkbox"/> Section 10.0	Centrifugal Compressor Affected Facility (NSPS, Subpart OOOO) <sup>2</sup>
<input type="checkbox"/> Section 11.0	Reciprocating Compressor Affected Facility (NSPS, Subpart OOOO) <sup>2</sup>
<input checked="" type="checkbox"/> Section 12.0	Reciprocating Internal Combustion Engines, Generator Engines, Microturbine Generators
<input checked="" type="checkbox"/> Section 13.0	Tanker Truck Loading <sup>3</sup>
<input checked="" type="checkbox"/> Section 14.0	Glycol Dehydration Units <sup>4</sup>

- 1 Registrants that are subject to Section 5 may also be subject to Section 6 if the applicant is subject to the NSPS, Subpart OOOO control requirements or the applicable control device requirements of Section 7.*
- 2 Registrants that are subject to Section 10 and 11 are also subject to the applicable RICE requirements of Section 12.*
- 3 Registrants that are subject to Section 13 may also be subject to control device and emission reduction device requirements of Section 7.*
- 4 Registrants that are subject to Section 14 are also subject to the requirements of Section 8 (reboilers). Registrants that are subject to Section 14 may also be subject to control device and emission reduction device requirements of Section 7.*

STORAGE VESSELS										
Emission Unit ID#	Emission Point ID#	Content	Maximum Volume (gal)	Annual Throughput Limit (gal/yr)	Control Device ID#	Manuf. Date <sup>1</sup>	Year Installed/Modified	VRU	Subject to 40CFR60 Subpart OOOO? <sup>1</sup>	G35-C Applicable Sections
TD-201	TD-201	Lube Oil	500	NA	Not Applicable	Before 8/23/11	2008	None	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <sup>2</sup>	Section 5.0
TD-202	TD-202	Waste Oil/Glycol Liquids	4,033	NA	Not Applicable	Before 8/23/11	2008	None	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <sup>2</sup>	Section 5.0

1 Commenced construction, modification or reconstruction before August 23, 2011.

2 VOC emissions less than 6 tpy.

FUEL BURNING UNITS					
See Section 8.0					
Emission Unit ID#	Emission Point ID#	Description	MDHI (MMBTU/hr)	Year Installed/Modified	G35-C Applicable Sections
No Fuel Burning Units					

### **PNEUMATIC CONTROLLERS**

Are there any applicable pneumatic controllers subject to 40CFR60 Subpart OOOO at this facility?

☐ Yes ☒ No

Approximate Number of Applicable Pneumatic Controllers : Zero (0)

See Section 9.0

### **CENTRIFUGAL COMPRESSORS**

Are there any applicable centrifugal compressors subject to 40CFR60 Subpart OOOO at this facility?

☐ Yes ☒ No

See Section 10.0

Description

### **RECIPROCATING COMPRESSORS**

Are there any applicable reciprocating compressors subject to 40CFR60 Subpart OOOO at this facility?

☒ Yes ☐ No

See Section 11.0

Description

**RECIPROCATING INTERNAL COMBUSTION ENGINES**

See Section 12.0

Emission Unit ID#	Emission Point ID#	Make/Model/HP	Control Device ID#	Year Installed/Modified	Engine Manufacture Date	Subject to 12.1.4/12.4.1	Engine Type	Applicable Rules	40CFR63 Subpart ZZZZ New or Existing?
CE-1	CE-1	Caterpillar G3508TALE	Not Applicable	2008 (Installed)	2007	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> 2SLB <input checked="" type="checkbox"/> 4SLB <input type="checkbox"/> 4SRB	<input checked="" type="checkbox"/> 40CFR60 Subpart JJJJ Certified? <input type="checkbox"/> 40CFR60 Subpart IIII Certified? <input type="checkbox"/> 40CFR63 Subpart ZZZZ <input checked="" type="checkbox"/> NESHAP ZZZZ/ NSPS JJJJ Window	<input checked="" type="checkbox"/> New <input type="checkbox"/> Existing

*New or reconstructed sources in accordance with 63.6590(c) must only meet the requirements of 40CFR60 Subparts IIII or JJJJ.*

**SPARK IGNITION RECIPROCATING INTERNAL COMBUSTION ENGINES TESTING REQUIREMENTS**

See Section 12.0

Emission Unit ID#	Emission Point ID#	Make/Model/HP	Control Device ID#	Year Installed/Modified	Engine Manufacture Date	40CFR60 Subpart JJJJ Testing Requirements
CE-1	CE-1	Caterpillar G3508TALE	Not Applicable	2008	Before 7/1/2010	<input checked="" type="checkbox"/> Initial Performance Test <input checked="" type="checkbox"/> Every 8,760 hours of operation or 3 years (whichever comes first)

**TANKER TRUCK LOADOUT**

Are there any tanker truck loadout operations at this facility?

☐ Yes ☒ No

See Section 13.0

Emission Unit ID#	Emission Point ID#	Description	Annual Throughput Limit (gal/yr)	Year Installed/Modified	Control Device ID#	Closed System Collection?
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**GLYCOL DEHYDRATION UNITS**

Are there any glycol dehydration units at this facility?

☒ Yes ☐ No

See Section 14.0

Emission Unit ID#	Emission Point ID#	Description (Make, Model)	Year Installed/Modified	Subject to 40CFR63 Subpart HH?	40CFR63 Subpart HH Exemptions	Max Dry Gas Flow Rate (mmscf/day)	APCD/ERD ID#
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Exemption - The actual average emissions of Benzene from the glycol dehydration unit process vent to the atmosphere are less than 0.90 megagram per year (1 ton per year).

The glycol dehydration unit is not located within an Urbanized Area (UA) or Urban Cluster (UC).



### AIR POLLUTION CONTROL DEVICES

Are there any air pollution control devices at this facility?

☐ Yes ☒ No

See Sections 6.0, 7.0

Control Device ID#	Control Efficiency (%)	Control Device Description (Make/Model)	Year Installed/Modified	Max Design Capacity (state units)	Subject to:
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### EMISSION REDUCTION DEVICES (ERD)

Are there any ERDs (VRU, Recycled Reboiler, BTEX Eliminator, etc.) at this facility?

☐ Yes ☒ No

See Sections 6.0, 7.0

ERD ID#	ERD Efficiency (%)	ERD Description (Make/Model)	Year Installed/Modified	Max Design Capacity (state units)

### EMISSION LIMITATIONS

Emission Unit ID#	Emission Point ID#	Emission Unit Description	Pollutant	Maximum Potential Emissions	
				Hourly (lb/hr)	Annual (tons/year)
CE-1	CE-1	Caterpillar G3508TALE	Nitrogen Oxides	2.78	12.17
			Carbon Monoxide	2.22	9.74
			Volatile Organic Compounds	0.39	1.70
			PM <sub>10</sub>	0.05	0.24
			Formaldehyde	0.28	1.70
RSV-1	RSV-1	Dehydrator Vent	Volatile Organic Compounds	7.69	33.66
			HAPs	1.45	6.34